



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/727,924	11/30/2000	Joseph P. Odenwalder	PA010045	6384

23696 7590 06/17/2003

Qualcomm Incorporated
Patents Department
5775 Morehouse Drive
San Diego, CA 92121-1714

EXAMINER

CORRIELUS, JEAN B

ART UNIT	PAPER NUMBER
----------	--------------

2631

7

DATE MAILED: 06/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

✓

Office Action Summary

Application No.

09/727,924

Applicant(s)

ODENWALDER ET AL.

Examiner

Jean B Corrielus

Art Unit

2631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11, 12 and 21 is/are allowed.
- 6) ☒ Claim(s) 1-3,5-10,13-20 and 22 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5-6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 2631

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

2. Claims 1, 2, 17, 18 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Dahlman et al US Patent No. 6,442,153.

Dahlman et al discloses a method and apparatus having the steps of repackaging a data payload into a subpacket see fig. 1; generating a preamble payload see fig. 2 corresponding to the subpacket see fig. 1; spreading the preamble payload to form a preamble unit see fig. 2.

As per claims 2 and 19, Dahlman teaches the step of sequencing the preamble unit see fig. 1.

Art Unit: 2631

3. Claims 13 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Quigley et al US Patent application Publication No. US 2001/0055319 A1.

Quigley et al discloses a method and apparatus having the steps of determining a data rate for a data payload see col. 21, lines 6-9; using a lookup table to determine a corresponding packet size for the payload data and a preamble length see fig. 69 (payload 118a includes both data (subpacket) and preamble attached to the data (subpacket) col. 36, paragraph 518.

4. Claim 15 is rejected under 35 U.S.C. 102(e) as being anticipated by Frank US Application publication No. US 2001/0038356 A1.

Frank teaches an apparatus having an encoder 302 for receiving data payload transmission parameters a spreading element 308 and a mapper (310 and 312) for mapping the spread encoded data payload transmission parameters.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Dahlman et al US patent No. 6,442,153.

Art Unit: 2631

As applied to claim 1, Dahlman teaches every feature of the claimed invention but does not teach the sequencing the preamble is performed in accordance with a permutation pattern. However, such limitation does not involve any inventive step. Given that, it would have been obvious to one skill in the art to incorporate such a teaching in Dahlman in order to enhance system reliability.

As per claims 9 and 10, it would have been obvious to one skill in the art at the time of the invention to modify Dahlman et al by spreading the preamble using a plurality of Walsh codes so as to take advantage of good correlation properties

7. Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dahlman et al US patent No. 6,442,153 in view of Kanterakis et al US patent No. 6,301,286.

As per claims 5, 7, 8 and 20, Dahlman fails to teach the further limitations of encoding the preamble using a convolutional encoder/block code. In the same field of endeavor Kanterakis et al teaching the step of encoding the preamble. It would have been obvious to one skill in the art to incorporate such a teaching in Dahlman so as to increase system immunity to noise and intersymbol interference.

As per claim 6, the preamble inherently includes a destination address and source address inherently encoded differently from a remaining portion of the preamble.

8. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Quigley et al.

Art Unit: 2631

As applied to claim 13 above, Quigley teaches every feature of the claimed invention but does not explicitly teach the use of a plurality of lookup tables each corresponding to a number of available Walsh codes. However, such limitations do not involve any inventive step. It would have been obvious to one skill in the art at the time of the invention to modify Quigley et al by providing a plurality of lookup tables each corresponding to a number of available Walsh codes so as to enhance system processing speed.

9. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Frank US Application publication No. US 2001/0038356 A1.

Frank teaches an apparatus having an encoder 302 for receiving data payload transmission parameters a spreading element 308 and a mapper (310 and 312) for mapping the spread encoded data payload transmission parameters. However, Frank does not teach the further limitations of modulating the payload data prior to spreading. However, such limitations do not involve any inventive step. It would have been obvious to one skill in the art to modify Frank in such a manner so as to reduce the complexity of the modulator.

Allowable Subject Matter

10. Claims 11, 12 and 21 are allowed.

Art Unit: 2631

11. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

12. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314

(for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Art Unit: 2631

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean B. Corrielus whose telephone number is (703) 305-4023.

The examiner can normally be reached on Monday-Thursday from 7:00 A.M. to 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham, can be reached on (703) 305-4378.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3800.


Jean B. Corrielus

Primary Examiner

TC-2600 6-12-03